15 ATTACK SQUADRON

MISSION

LINEAGE

2 Aviation School Squadron organized, 9 May 1917
Redesignated 15 Aero Squadron, 22 Aug 1917
Demobilized, 18 Sep 1919

15 Squadron (Observation) authorized, 30 Aug 1921
Organized, 21 Sep 1921
Redesignated 15 Observation Squadron, 25 Jan 1923

15 Aero Squadron and 15 Observation Squadron consolidated, 1924. Consolidated unit designated 15 Observation Squadron.

Inactivated, 1 Aug 1927
Activated, 15 May 1928
Redesignated 15 Observation Squadron (Medium), 13 Jan 1942
Redesignated 15 Observation Squadron, 4 Jul 1942
Redesignated 15 Reconnaissance Squadron (Fighter), 2 Apr 1943
Redesignated 15 Tactical Reconnaissance Squadron, 11 Aug 1943
Inactivated, 31 Mar 1946
Activated, 3 Dec 1947
Inactivated, 1 Apr 1949
Redesignated 15 Tactical Reconnaissance Squadron, Photo-Jet, 5 Feb 1951

Activated, 25 Feb 1951
Redesignated 15 Tactical Reconnaissance Squadron, 8 Oct 1966
Inactivated, 1 Oct 1990
Redesignated 15 Tactical Intelligence Squadron, 20 Feb 1991
Activated, 15 Mar 1991
Redesignated 15 Air Intelligence Squadron, 13 Apr 1992
Inactivated, 1 Jun 1994
Redesignated 15 Reconnaissance Squadron, 31 Jul 1997
Activated, 1 Aug 1997
Redesignated 15 Attack Squadron, 15 May 2016

STATIONS
Hazlehurst Field, NY, 9 May 1917-18 Sep 1919
Chanute Field, IL, 21 Sep 1921
Kelly Field, TX, Jun-1 Aug 1927
Selfridge Field, MI, 15 May 1928
Scott Field, IL, 28 Jun 1930 (detachment at Post Field, OK, 1 Dec 1940-Jan 1941)
Post Field, OK, 9 Jan 1941
Ellington Field, TX, 16 Dec 1941 (flight at Post Field, OK, Dec 1941-Apr 1942)
Godman Field, KY, 23 Apr 1942
Camp Campbell AAFld, KY, 26 Jun 1942
Key Field, MS, 6 Nov-4 Dec 1943
Aldermaston, England, 22 Dec 1943
Chilbolton, England, 1 Mar 1944
Middle Wallop, England, 16 Mar 1944
Chalgrove, England, 27 Jun 1944
Rennes, France, 10 Aug 1944
Chateaudun, France, 26 Aug 1944
St Dizier, France, 9 Sep 1944
Giraumont, France, 1 Dec 1944
Trier, Germany, 14 Mar 1945
Ober Olm, Germany, 3 Apr 1945
Erfurt, Germany, 16 Apr 1945
Furth, Germany, 24 Apr 1945
Reims, France, 23 Jun-13 Jul 1945
Drew Field, FL, 3 Aug 1945
MacDill Field, FL, 21 Dec 1945
Shaw Field, SC, 3 Feb-31 Mar 1946
Pope Field (later, AFB), NC, 3 Dec 1947-1 Apr 1949
Komaki Japan (operated from Taegu AB, South Korea), 25 Feb 1951
Taegu AB, South Korea, 16 Mar 1951
Kimpo AB, South Korea, 23 Aug 1951
Komaki AB, Japan, 2 Mar 1954
Yokota AB, Japan, 25 Aug 1955

Kadena AB, Okinawa (later, Japan), 18 Aug 1956
Taegu AB, South Korea, 1 Oct 1989-1 Oct 1990
Hickam AFB, HI, 15 Mar 1991-1 Jun 1994
Indian Springs (Later, Creech AFB), NV, 1 Aug 1997

DEPLOYED STATIONS
Camp McCoy, WI, 24 Sep-28 Oct 1928
Camp Skeel, MI, 28-31 Oct 1928
Fort Sheridan, IL, 8-11 Jun 1930
Bowman Field, KY, 14-27 Jun 1930
Lawson AFB, GA, 22 Aug-Sep 1948
Turner AFB, GA, Sep 1948
Eglin Auxiliary Field No. 3, FL, Oct-3 Nov 1948
Osan AB, South Korea, 26 Jan-12 Feb 1968
Itazuke AB, Japan, 13 Feb-25 Jul 1968 detachment operated at Osan AB, South Korea, 13 Feb-25 Jul 1968

ASSIGNMENTS
Unkn, 1917-1919 (but possibly Aeronautical [later, Air] Division, Signal Corps, 9 May 1917
Training Section, Department of Military Aeronautics, Signal Corps, 24 Apr 1918
Operations Section, Department of Military Aeronautics, Signal Corps, 9 Jul 1918
Training and Operations Group, Air Service, 29 Jan-18 Sep 1919)
Sixth Corps Area, 21 Sep 1921
6 Division, Air Service, 24 Mar 1923
Sixth Corps Area, Jun-1 Aug 1927
6 Division, Air Service (later, 6 Division, Aviation), 15 May 1928
14 Observation Group, 8 May 1929
12 Observation Group, 1937-Jul 1938
Unkn, Jul 1938
detachment operated at Field Artillery School, 1 Dec 1940- 9 Jan 1941
Field Artillery School, 9 Jan 1941
III Air Support Command, 1 Sep 1941
73 Observation (later, 73 Reconnaissance; 73 Tactical Reconnaissance; 10 Photographic) Group, 12 Mar 1942
Ninth Air Force, 22 Dec 1943
IX Fighter Command, 30 Dec 1943
67 Tactical Reconnaissance Group, 4 Jan 1944
10 Photographic Group, Reconnaissance (later, 10 Reconnaissance Group), 13 Jun 1944
United States Strategic Air Forces in Europe, 24 Jun 1945
Third Air Force, 3 Aug 1945
First Air Force, 3 Feb 1946
Tactical Air Command, 21-31 Mar 1946
10 Reconnaissance (later, 10 Tactical Reconnaissance) Group, 3 Dec 1947-1 Apr 1949
67 Tactical Reconnaissance Group, 25 Feb 1951

67 Tactical Reconnaissance Wing, 1 Oct 1957
313 Air Division, 25 Apr 1960
18 Tactical Fighter Group, 1 May 1978
18 Tactical Fighter Wing, 11 Feb 1981
460 Tactical Reconnaissance Group, 1 Oct 1989-1 Oct 1990
548 Reconnaissance Technical Group, 15 Mar 1991
Pacific Air Forces, 3 Jul 1991
15 Operations Group, 13 Apr 1992-1 Jun 1994
57 Operations Group, 1 Aug 1997
432 Operations Group, 1 May 2007
732 Operations Group, 2 Jul 2018

ATTACHMENTS
Sixth Corps Area, 24 Mar 1923-Jun 1927
Sixth Corps Area, 15 May 1928- 9 Jan 1941
Field Artillery School, 1 Sep 1941
68 Observation Group, 12 Dec 1941-2 Feb 1942
67 Tactical Reconnaissance Group, 22 Dec 1943
IX [later, XIX] Air Support Command, 4 Jan 1944-16 Mar 1944
IX Tactical Air Command, 13-27 Jun 1944
67 Tactical Reconnaissance Wing, 1 Jun-25 Nov 1954 and 1 Jul-1 Oct 1957
363 Reconnaissance Group, 22 Aug-3 Nov 1948
18 Tactical Fighter Wing, 15 Mar 1960-20 Apr 1970

WEAPON SYSTEMS
A-20, P-39
DH-4B
DH-4 1917-1919
F-80, 1952-1953
F-86, 1953
JN-4
JN-6
JNS-1
L-4
L-5, 1943-1944
M-1
O-19, 1930-1938
O-2, 1928-1930
O-43
O-46, 1936-1939
O-47, 1939-1942
O-49
O-52
P-40

P-51, 1942-1943
P-51/F-6, 1944-1945
P-51/F-6, 1947-1948
RF-101, 1958-1966
RF-4, 1967-1990
RF-51, 1947-1949
RF-80, 1951-1956
RF-84, 1956-1958
RF-86, 1951-1956
Spitfire V

COMMANDERS
Capt John W. Butts, 1917-unkn
Capt H. Reynolds, 1918
1st Lt William P. Berry, unkn-1919
Capt Ernest Clark, 25 Sep 1921-21 Jun 1927
Unknown, 21 Jun 1927-1 Aug 1927
Inactive, 1 Aug 1927-15 May 1928
1st Lt Arthur G. Hamilton, 15 May 1928
Capt. Clearton H. Reynolds, 26 Nov 1928
Capt Wolcott P. Hayes, 15 Feb 1930
1st Lt Frederick A. Johnson, 7 Aug 1932
1st Lt Leslie P. Holcomb, 27 Jan 1933
Capt William Goldsborough, 4 Mar 1933
Maj Martin F. Scanlon, 17 Oct 1933
1st Lt Leslie P. Holcomb, 13 Jan 1935
Maj William Goldsborough, 17 Feb 1935
Maj Raphael Baez, 2 May 1936
Maj Frank H. Pritchard, 20 Aug 1936
Maj Raphael Baez, 15 Jan 1937
Unknown, Oct 1940-7 Dec 1941
Lt Col William E. Karnes, unkn-Mar 1942
Capt Schneider, Mar 1942
Capt James H. Kaden, Nov 1942
Maj Lloyd O. Warren, 7 May 1943
Lt Col George T. Walker, 30 Apr 1944
Maj Lyon L. Davis, 11 Oct 1944-23 Jun 194
Unkn, 24 Jun-Sep 1945
None (not manned), Sep 1945-31 Mar 1946
Maj James M. Williams, 3 Dec 1947
Capt David F. Thwaites, Dec 1947
Maj James M. Williams, Jan 1948
Lt Col Harrison R. Christy, Jr., 24 Feb 1948
Lt Col Robert T. Simpson, 24 Mar 1948

Capt Robert H. Greene, Jul 1948
Maj James M. Williams, 10 Jul 1948
Capt Francis R. Davison, Sep 1948
Lt Col Edward O. McComas, 23 Sep 1948
Maj James M. Williams, Oct 1948
Lt Col Edward O. McComas, Nov 1948
Maj James M. Williams, 4 Jan 1949
Maj William I. Williams, 14 Feb-1 Apr 1949
Maj Jean K. Woodyard, Jr., 25 Feb 1951
Maj Clyde B. East, 2 May 1951
Maj Bruce B. Fish, 22 Aug 1951
Maj Ruffin W. Gray, 1 Nov 1951
Lt Col Jack P. Williams, 16 Apr 1952
Lt Col Houser Wilson, 28 Jun 1952
Maj Daniel J. Nelson, Feb 1953
Lt Col Ralph F. Newman, Apr 1953-1954
Maj R. E. Morrison, 1955
Lt Col Jenkins, (by Jun) 1955
Lt Col William F. Nuding, Jr., 12 Dec 1955
Maj James M. Jones, Jr., Jul 1958
Lt Col Lawrence P. Smith, Jun 1959
Lt Col Earl A. Butts, Apr 1960-15 Dec 1961
Unkn, 16 Dec 1961-1 Jan 1962
Col Arthur G. Durbeck, 2 Jan 1962
Maj Russell F. Crutchlow, 26 Apr 1962
Lt Col Alexander P. Butterfield, 12 Aug 1962
Lt Col Robert O. Crabtree, 25 Jul 1964
Maj Martin Weissgarber, Jr., 11 May 1965
Col Robert O. Crabtree, 29 Mar 1966
Lt Col Russell F. Crutchlow, 1 Dec 1966
Lt Col Paul H. Hodges, 13 Jun 1968
Col Rolland G. Hull, 18 Jun 1970
Lt Col David R. Elby, 15 Jun 1971
Lt Col Theodore L. Albright, 14 Jun 1972
Lt Col Clifton J. Hawkins, Jul 1973
Lt Col Richard E. Carr, 8 Jul 1975
Lt Col John W. Linihan, 30 Jun 1977
Lt Col Ralph S. Pickett, 11 May 1979
Lt Col Otto K. Habedank, 20 Jun 1980
Lt Col James R. Young, II, 12 Apr 1982
Lt Col James R. Wick, 3 Jan 1984
Lt Col David G. Evans, 29 May 1985
Lt Col Victor M. Martin, 2 Jul 1987
Lt Col Harry J. Sands, III, 27 Apr 1989-1 Oct 1990

Unkn, 15 Mar 1991-1992
Lt Col Michael D. Stevens, by 13 Apr 1992
Lt Col Roger W. Gaebel, 13 Jul 1992
Maj William H. Cilek, 30 Jun 1993-1 Jun 1994

HONORS
Service Streamers

Campaign Streamers
World War II
Antisubmarine, American Theater
Air Offensive, Europe
Normandy
Northern France
Rhineland
Ardennes-Alsace
Central Europe
Air Combat, EAME Theater

Korean War
First UN Counteroffensive
CCF Spring Offensive
UN Summer-Fall Offensive
Second Korean Winter
Korea Summer-Fall, 1952
Third Korean Winter
Korea, Summer, 1953

Armed Forces Expeditionary Streamers

Decorations
Distinguished Unit Citations (Korea)
25 Feb-21 Apr 1951
9 Jul-27 Nov 1951
1 May-27 Jul 1953

Meritorious Unit Awards
1 Jun 2007-31 May 2009
1 Jun 2011-31 May 2012
1 Jun 2012-31 May 2013
1 Jun 2017-31 May 2018
1 Jun 2018-31 May 2020

Air Force Outstanding Unit Awards
1 Dec 1952-30 Apr 1953
10 May-27 Aug 1962
1 Sep 1962-31 Aug 1963
1 Aug 1964-5 Jun 1965
6 Jun 1965-31 Dec 1966
1 Jan 1968-31 Dec 1969
1 Jan 1974-31 Dec 1975
1 Jun 1977-31 May 1979
1 Oct 1979-31 May 1980
1 Jul 1981-31 May 1983
1 Jun 1983-31 May 1984
1 Jun 1984-31 May 1986
1 Jun 1987-31 May 1989
1 Oct 1989-[1 Oct] 1990
13 Apr 1992-30 Jun 1993
1 Oct 1993-1 Jun 1994
1 Jun 1998-31 May 2000
1 Jun 2001-31 May 2003
1 Jun 2003-31 May 2004
1 Jun 2004-31 May 2006
1 Jun 2009-31 May 2010
1 Jun 2013-31 May 2014

Cited in the Order of the Day, Belgian Army
6 Jun-[25 Jun] 1944

Republic of Korea Presidential Unit Citation
[25] Feb 1951-31 Mar 1953

Republic of Vietnam Gallantry Cross with Palm
1 Apr-30 Nov 1966

EMBLEM

15 Observation Squadron emblem approved, 2 Apr 1924

15 Tactical Reconnaissance Squadron emblem and patch

15 Reconnaissance Squadron emblem and patch

15 Attack Squadron emblem approved, 9 Mar 2017

MOTTO

OPERATIONS
Flying training unit, 1917-1919.

The original mission of the squadron was part of the defense force for the New York City area, flying coastal patrols.

From 1921 to 1927, the main focus of the squadron was flying training, including gunnery, observation, reconnaissance, photography and radio familiarization.

Antisubmarine patrols over Gulf of Mexico, Dec 1941-Mar 1942.

During the early stages of World War II, the 15 supported the Field Artillery School in Oklahoma. In 1943, the unit trained British Spitfire pilots in England. Later, the squadron used P-51 and F-6 aircraft during the war. On March 26, 1944, the squadron flew its first combat mission, a photographic reconnaissance flight over France. On June 6, 1944, the 15 received credit for the first aerial victory of D-Day.

Conducted visual and photographic reconnaissance in Korea, 26 Feb 1951-27 Jul 1953. Continued aerial surveillance and reconnaissance in the Far East until inactivation in 1990. 15 TRS Members of the “Cotton Pickers" Squadron are proud of their record of having flown over 12,000 missions of daylight reconnaissance. Many of these missions have been deep in enemy territory, along the Yalu River and in MIG filled skies. Their skill in flying RF- 80’s and RF 86's is undisputed. Theirs is an important mission with special emphasis on front line basic cover for topographic and tactical studies, the accomplishment of bomb damage assessment, surveillance of enemy activity by coverage of recurring targets and to observe and photograph

targets of opportunity such as new construction of installations, movements of troops and supplies.

Four 15 Tactical Reconnaissance Squadron RF-101s deployed to Tan Son Nhut, Vietnam, on 20 October and remained for approximately one month under the project name Pipe Stem. They flew 67 reconnaissance sorties over South Vietnam and Laos, developing their photographs by a photo processing unit they brought with them.

On February 4, 1967, the first PACAF aircraft were received by the 15 TRS and these aircraft were soon seen in operation over Vietnam.

RF-101C 56-230 Burt Waltz AAA Laos Rescued 21 Nov 1964
RF-101C 56-190 Charlie Shelton AAA Laos KIA 29 Apr 1965
RF-101C 56-204 George Hall Gunfire NVN POW 27 Sep 1965
RF-101C 56-178 Bob Pitt AAA NVN Crash Landing 5 Oct 1965 Da Nang
RF-101C 56-043 Gordon Page SAM NVN KIA 7 Mar 1966
RF-101C 56-220 Jerdy Wright SAM NVN KIA 7 Mar 1966

Performed an intelligence function for Pacific Air Forces, 1991-1994.

The 15 RS was activated Aug. 1, 1997, at Indian Springs Air Force Auxiliary Field (later renamed Creech AFB).

The squadron continues to fly combat sorties in support of Operations Enduring and Iraqi Freedom. The squadron received its first Predator System in May 1998 and deployed to Southwest Asia in January 1999.

On 11 December 2003, at approximately 1500 Local Pacific Standard Time, an RQ-1L Predator, Remotely Piloted Aircraft (RPA), serial number 97-3036, 15 Expeditionary Reconnaissance Squadron, 57th Wing, Nellis Air Force Base, Nevada, impacted the terrain at a classified location while flying a mission in support of Operation ENDURING FREEDOM. There were no injuries or fatalities from the accident. Upon impact, the mishap RPA (MRPA) was damaged beyond economical repair. The loss is valued at $3,300,000. There are no claims for damage to government or private property. There was minimal media interest regarding this accident. The MRPA had been conducting reconnaissance missions for approximately 6 hours at the time the mishap pilot (MP) took control. Prior to take off the MRPA had been inspected and no maintenance related or other discrepancies were noted. Likewise, the previous crews noted no discrepancies or malfunctions regarding the MRPA. Approximately 20 minutes after the inflight crew changeover, the MP grew concerned that he may be entering icing conditions. The MP disengaged both the Preprogram flight and Airspeed Hold mode of the autopilot. In Preprogram mode the RPA will automatically fly a pre-planned route. Airspeed Hold mode maintains a commanded airspeed. At that point, the nose of the MRPA tracked up abruptly to a high pitch angle (nose high unusual attitude) and slowed to near stall speed. A stall will occur when the speed of the air over the wings is insufficient to produce enough lift to keep the aircraft in the

air. The MP attempted to manually counter the high pitch angle and recover the MRPA to normal parameters. Approximately two minutes later the mission control element (MCE) lost contact with the MRPA. Following a search of the area near the loss of contact, the MRPA was found destroyed after impact with the ground. USAF and USMC officials investigating the crash site elected to remove crucial components and destroy the existing wreckage due to the close proximity of the crash sight to the local populace. The primary cause of this accident, supported by clear and convincing evidence, was the abrupt pitch inputs made by the MP during a nose high unusual attitude after disengaging the autopilot These inputs led to several oscillations exceeding the data link (electronic command and data signal from the pilot to the RPA) and airframe operating limitations of the MRPA and eventual loss of control of the MRPA. Four significant contributing factors, supported by substantial evidence, contributed to this mishap: (1) a software anomaly which set the pitch stick at 9 degrees nose high without MP awareness; (2) mishap crew icing analysis which led the MP to disengage the autopilot; (3) intermittent link connectivity with the mishap RPA due to the abrupt pitch stick inputs; (4) Finally, these factors led to a cycle of MP inputs, intermittent link with the MRPA and the MRPA's programmed lost link procedures produced a series of oscillations that exceeded operating limitations and link capability.

USAF will move all Predator UAV operational and support functions to Indian Springs AFAF. Nev. beginning late next year, according to Inside the Air Force. The 15 and 17th Reconnaissance Squadrons and the Predator Operations Center are operating out of Nellis AFB, Nev. because Indian Springs lacked the communications capability to handle ongoing combat operations. USAF plans to spend up to $200 million to improve the communications infrastructure at Indian Springs, now host to the UAV Battlelab, which moved there from Eglin AFB, Fla. Officials said space was a concern at Nellis, which conducts advanced training, tactics development, and weapons testing. 2004

On 17 August 2004, at 0920 local time, an MQ-1L Predator, S/N 99-3062, call sign BUGSY 24, 15 Reconnaissance Squadron, crashed while flying in the CENTCOM Area of Responsibility (AOR) supporting the air base defense mission of a deployed airfield. Fire in the aft section of the aircraft caused the right tailboard to depart the aircraft. The aircraft departed controlled flight and was destroyed upon impact with the loss valued at $4,288,000. No one was injured in the accident and there was no damage to government or private properly. Media interest was minimal. The mishap mission was the first flight out phase after accomplishing the 60 hour engine and 120 hour airframe inspection. Approximately 28 minutes after takeoff, the aircrew received numerous warning tones at once indicating the engine failure, alternator failure and engine fire amongst other failure warnings. Visual observation from the sensor ball clearly showed a fire consuming the aft section of the aircraft. Over the next few minutes, the fire became catastrophic, with fire burning the propeller area, top of the engine area and the right tailboard servo area. The aircraft became uncontrollable during this period. The right tailboard departed the aircraft and the aircraft departed controlled flight and crashed. There is clear and convincing evidence that this mishap was caused by a fire in the engine compartment. There is substantial evidence the fire was caused by the non-standard routing of the oil pump supply line bringing oil from the oil cooler to the oil pump. The line was routed over the engine block

around #3 cylinder head and then to the oil pump. The location of the fibre, routing of the oil line, condition of the oil line, flammability characteristics of the oil, and condition of the engine components tend to indicate that the oil supply line failed and the subsequent oil leak was the ignition point of the fire. The hose is made of a material that when exposed to the normal heat from the turbocharger or contact of the oil line to cylinder #3 exhaust would failed over time and expose oil to veiy hot surfaces, thus starting a fire. The fire, fed by airflow from the air scoops and fuel or coolant lines that were burned, grew to encompass the propeller area, and affected the structural integrity of Bulkhead 10 causing the right tailboard to depart the aircraft. The aircraft departed controlled flight and was destroyed upon impact. There is substantial evidence that two additional factors contributed to this mishap: (1) the maintenance technical orders do not give clear guidance on how to route the hoses; and (2) the very high Ops TEMPO for both the operations and maintenance crews.

On 14 January 2005, at an undetermined time, an MQ-1L, Predator, S/N 03-3103, crashed at a forward location. The MQ-1L, assigned to the 15 Reconnaissance Squadron, 57th Wing, Nellis Air Force Base, impacted the terrain in a forward location in support of Operation ENDURING FREEDOM. The crash was in an unpopulated area and there were no reported injuries, fatalities, or media interest. The aircraft was damaged beyond economical repair and the loss is valued at $3,579,320. There were no reported injuries or damage to private property. The mishap aircraft (MA) had been conducting normal reconnaissance operations through the first eight hours into the mission. Shortly thereafter, the ground control station experienced a control rack lockup. This is a malfunction of the computer control system similar to that experienced on home computers. The mishap pilot called for technical assistance. When the technical representatives arrived, the pilot's control rack rebooted. Subsequently, there were problems with the mishap sensor operators control rack and the decision was made to reboot both control racks. At approximately this same time, command links were severed by the communications technician with the MA and it began to execute its lost link emergency profile. Immediately after the control rack reboots and at approximately 8.6 hours into the mission, all communications links via the Ku satellite system were lost. None of the ground control stations ever regained command and control communications connectivity with the MA for the duration of the flight. Radar position reports indicate the MA flew its lost link profile until approximately 13.5 hours into the mission at which time, the aircraft appeared to turn and reinitiate the lost link profile. At 20.9 hours into the mission, the aircraft was last seen, apparently flying the lost link profile it had flown previously with the exception of the altitudes (17,000 ft vs 20,000 ft). The aircraft eventually impacted the ground approximately 16 nautical miles from its last known position. There is clear and convincing evidence that the primary cause of this mishap was the loss of all control of the MA which led to its eventual crash due to fuel starvation. The definition of "loss of all control" in this case refers to: 1) actual control of the aircraft through any of the command links and; 2) knowledge of what the aircraft would do when the command links were lost. Significant contributing factors supported by substantial evidence include incorrect procedures, data corruption, hardware failure, training, miscommunication, OPTEMPO, and supervision.

On 27 March 2005, at approximately 0240Z, an MQ-1L Predator, Remotely Piloted Aircraft (RPA), S/N 99-003056, crashed 10 miles north of a forward operating location (FOL) in the USCENTCOM theater. The aircraft departed controlled flight approximately eight minutes after an engine fire was detected. The mishap RPA (MRPA) was deployed from the 15 Reconnaissance Squadron, 57th Wing, Nellis AFB, Nevada. The fire was catastrophic, quickly burning through fuel and oil lines on the engine and other components in the engine bay. During the course of the fire, the engine failed. Seven minutes later, the aircraft experienced uncommanded pitch and roll changes as the structural integrity of the left tail plane servomotor weakened. One minute later, the left tail plane departed the aircraft and it departed controlled flight. The left tail plane was not at the impact site and was never recovered. There were no injuries or fatalities from the accident. Upon impact, the MRPA was damaged beyond economical repair. Other than the damage to the aircraft, valued at $3,792,200, there was no damage to government or private property. The primary cause of this accident, supported by clear and convincing evidence, was a catastrophic engine fire that spread through the engine bay and tail section of the aircraft. As the fire continued to grow fed by fuel, oil, and airflow from the air scoops, the ignition module was disabled causing the engine to fail, the left tail plane servomotor weakened causing the left tail plane to separate from the aircraft and the aircraft departed controlled flight. There is substantial evidence that the cause of the engine fire was a fuel leak on the left forward part of the engine that found an ignition source, most likely the turbocharger, alternator, or a cylinder head. The location of the fire as well as critical components on the left bulkhead, flammability of the fuel, materials used for fuel and oil lines, and routing of fuel, oil, and cooling air lines tend to indicate that the fuel priming solenoid feed line failed and the subsequent fuel leak was the ignition point of the fire. There is substantial evidence six additional factors substantially contributed to the mishap: (1) an O-ring seal on the #3 cylinder valve cover was pinched or cut during installation. After holding a seal for three previous flights, it may have failed and leaked oil that collected in the lower engine bay cowl and provided combustible material to feed the fire. While it is possible this could have been the ignition source, it is unlikely due to the high flashpoint of the oil; (2) the aircraft design uses rubber fuel and oil lines susceptible to fire and damage from exposure to extreme heat; (3) there is no dedicated fire-detection or fire-suppression system; (4) cockpit controls, switches, and displays detract from safe mission completion; (5) inadequate procedural guidance for engine fires; (6) inadequate technical data on the proper routing of fuel, oil, and cooling lines; and (7) inadequate technical data on proper post flight inspection procedures resulting in a failure to detect fuel line chafing.

On 30 March 2005 at 0804 local time, an MQ-1L PREDATOR, S/N 99-3064, callsign SPECK 32,15 Reconnaissance Squadron, Indian Springs Air Force Auxiliary Field, Nevada, crashed during a reconnaissance mission while operating from a deployed location in the CENTCOM AOR. Upon ground impact, the unmanned aircraft was severely damaged with losses valued at $4,359,991. No one was injured in the accident. Other than the mishap aircraft, there was no damage to government or private property. Media interest was minimal. Approximately 12.2 hours into a 20 hour sortie, the aircraft sustained a momentary engine anomaly followed by a near instantaneous loss of airspeed and a sink rate exceeding 1500 feet per minute (fpm). Approximately 2 seconds later, the aircraft engine recovered to normal operations; however,

the low airspeed and high sink rate continued. To maintain flying airspeed, the mishap pilot established a nose low attitude, but the abnormal sink rate of approximately 1400 fpm remained. 20 seconds prior to ground impact, the mishap pilot began lining up on an open dirt area for landing. The mishap pilot attempted to land the aircraft using normal references and used his excess airspeed to lessen the high sink rate. The aircraft impacted the ground 6 minutes and 28 seconds after the initial anomaly while. There is clear and convincing evidence that this mishap was caused by the failure of the pilot bearing that encases the variable pitch propeller quill shaft. Damage analysis of the pilot bearing and quill shaft suggests a long duration, progressive failure within the unit. The failed pilot bearing, which is supposed to allow the propeller shaft to spin freely around the fixed quill shaft, caused enough friction to torsionally sheer the adapter which holds the quill shaft in place. The engine anomaly occurred during the initial sheering action as heavy drag was being placed on the engine via the propeller shaft. Once the adapter sheered, the quill shaft then unscrewed itself from the variable pitch propeller servo and drove the propellers to a negative pitch setting causing severe drag and high sink rates. As supported by clear and convincing evidence, the aircraft hit tail first, with its landing gear up, and the engine in full power. The impact caused the three tails to snap off as it slid on its wing-mounted Hellfire missiles for nearly 30 meters before stopping after hitting a small earthen berm. Upon impact with the berm, the right Hellfire missile was buried in the berm and the left Hellfire missile and its missile rail tore nearly half of the left wing off. The sensor ball on the underside of the nose was destroyed after being driven into the nose of the aircraft. There is clear and convincing evidence that the engine continued to run after impacting the ground and had a catastrophic failure due to extreme overspeed conditions.

On 17 Jan 2007 at 2035Z, an MQ-IB PREDATOR, S/N 03-3112,15 Reconnaissance Squadron, Creech AFB, Nevada, crashed during a reconnaissance mission while operating from a deployed location in the Central Command Area of Responsibility. Upon ground impact, the unmanned aircraft was severely damaged with losses valued at $4,160,391.00 No one was injured in the accident Other than the Mishap Aircraft (MA), there was no damage to government or private property. There was very limited media interest Approximately 14 hours into a 20 hour sortie, the aircraft sustained a momentary (two (2) seconds) drop in engine rotations per minute (RPM) followed 15 minutes later by catastrophic engine failure. Data logger analysis of changes in RPM, oil pressure, turbo oil temperature, and propeller pitch subsequent to the original two second RPM drop indicate the engine was failing over a period of approximately 15 minutes. However, monitored engine parameters remained within normal ranges until approximately the last minute before the engine seized. Therefore, the MA did not generate any form of caution or warning to the pilot of the impending failure until approximately 60 seconds prior to the engine completely failing. There is clear and convincing evidence that the first point of failure was a crack in the crankshaft which propagated over time to the area of the #4 connecting rod bearing. The # 4 connecting rod ultimately failed and wedged itself in the opposing #3 cylinder causing the crankshaft to immediately stop approximately 15 minutes after the initial two second drop in engine RPM, The pilot took appropriate actions to establish glide to an unpopulated area with the intent to land the MA via KU band (satellite) control. By telephone, the Combined Air Operations Center (CAOC) directed the Mission Commander (MCC) to crash the MA rather than attempt a landing if there were no friendly personnel to

secure the aircraft. The CAOC decision was based on the classified equipment the MA was carrying and the two Hellfire missiles. The CAOC determined that there were no friendly forces to secure the MA on the ground nearby so the Mishap Pilot 2 (MP2) intentionally crashed the MA into an unpopulated area. The remains of the MA and all classified equipment and weapons were recovered.

On 23 February 2007, at 0804 local time, an MQ-1B PREDATOR, S/N 03-3124, 15 Reconnaissance Squadron, Creech Air Force Base, Nevada, crashed during a reconnaissance mission while operating from a deployed location in the CENTCOM AOR. Upon ground impact, the unmanned aerial vehicle (UAV) was destroyed with losses valued at $3,742,655. No one was injured in the accident. Other than the mishap aircraft, there was no damage to government or private property. Media interest was minimal. Approximately 2.4 hours into a 20 hour sortie, the MA experienced a fuel transfer problem and an unrelated failure of the Variable Pitch Propeller (VPP) servo. The fuel transfer problem ultimately led to the discovery of the VPP failure. Approximately 7.8 hours into the sortie, while attempting to troubleshoot the VPP problem, the mishap aircraft (MA) experienced a partial loss of engine power and began a slow descent. The cause of the power loss could not be corrected and the MA crashed at an isolated mountainside location. The wreckage was not recovered due to the remote location of the crash site. Classified imagery from another Predator confirmed the destruction of the MA. There is clear and convincing evidence the mishap was caused by a failure of the VPP servo motor. Since the wreckage was not retrievable, the investigation centered on analysis of recorded flight and system data and witness testimony, which plainly revealed an open circuit within the VPP servo motor causing it to fail. The failed VPP servo motor drives a mechanical assembly to adjust the pitch of the propeller. Likely causes of the open circuit failure include a broken wire, a brush not making contact, or the supply voltage not getting to the VPP servo motor. However, feedback from the VPP servo motor continued after, initial failure indications suggesting power was still being supplied to the motor. The MA's engine continued to produce sufficient power for an extended period after the initial failure with the propeller fixed at a pitch angle suitable for existing flight conditions. However, while troubleshooting the VPP servo failure, the propeller was driven to an excessively course pitch angle for current flight conditions. This excessive propeller pitch angle then slowed the MA's engine and resulted in insufficient power for level flight. As supported by clear and convincing evidence, the mishap crew was unable to obtain power sufficient for level flight. The MA was crashed in an isolated mountainside location and was destroyed.

On 13 May 2009, the Mishap Aircraft (MA), a Block 15 MQ-1B Predator, tail number (T/N) 07-3183, was lost and presumed crashed at a forward operating location. The MA was carrying one AGM-114P HELLFIRE missile. The Predator was operated by the 15 Reconnaissance Squadron, 432d Wing, Creech Air Force Base, Nevada. At 1506L (local Creech time), 2206Z (Zulu time), the MA lost its return link (RL) while flying a sortie in support of OPERATION ENDURING FREEDOM. RL refers to the data transmission capability from the aircraft to the Ground Control Station (GCS) via the Predator communication systems. Attempts to reestablish the RL were unsuccessful. The MA did not return to its forward operating base and is presumed crashed with no known injuries, deaths, or reported property damage. The aircraft loss is valued at

approximately $3.9 million. After normal maintenance and preflight checks, the MA taxied and departed from its forward deployed location at approximately 1025L for a planned 22 hour mission. At 1506L, the RL between the MA and the GCS was lost. The Mishap Crew (MC) followed the required standard procedures in an attempt to regain the link but was unable to do so. At 1509L the Identify Friend or Foe (IFF) signal from the MA was lost and never recovered. Subsequent Tactical Control (TC) and Launch and Recovery Element (LRE) attempts to locate the MA were also unsuccessful. Contact with the MA was not re-established and the aircraft is presumed crashed. No wreckage was found. The post-mishap investigation revealed no anomalies with regards to the MA at the time of the lost link. Preflight procedures and launch of the aircraft were all normal. The GCS was thoroughly examined and no anomalies were found. There was no evidence of negative maintenance trends or issues, and maintenance records showed no discrepancies. The MC reported no anomalies with the operation of the MA immediately prior to the mishap. The AIB President could not determine the cause of this mishap. The AIB President did find sufficient evidence to determine that the mishap was not caused by weather, icing, the GCS, MC performance or qualifications, fuel starvation or maintenance discrepancies.

On 13 August 2009, at approximately 0451 Greenwich Mean Time (GMT), a MQ-1B Predator remotely-piloted aircraft, serial number 05-3145, impacted uninhabited terrain southwest of Joint Base Balad (JBB) while conducting a combat support mission for Operation IRAQI FREEDOM. The mishap remotely piloted aircraft (MRPA) was an Air Force Special Operations Command asset from the 3rd Special Operations Squadron at Cannon Air Force Base, New Mexico. The MRPA launched from JBB, Iraq, while the Air Combat Command crew, consisting of the mishap pilot (MP) and mishap sensor operator both from the 15 Reconnaissance Squadron, operated the MRPA from Creech AFB, Nevada. The estimated repair cost of the aircraft is $l2.78 million. There were no injuries and there was no known damage to other government or private property. After normal maintenance and pre-flight checks, the MRPA taxied and departed from JBB for a combat support mission at 1815 GMT on 12 August 2009. Approximately 10 hours and 28 minutes into the flight, the MRPA began to lose airspeed, experiencing both a loss of engine RPM and an associated loss of thrust. The MP attempted to regain control of the engine and. propeller throughout the majority of the un-commanded descent from 9,500 feet mean sea level until the MRPA crashed. The MP attempted to regain control by cycling the preprogrammed mode on, as well as altitude and airspeed hold functions, and appropriate throttle and pitch inputs in order to regain the desired altitude and airspeed. The MC performed the Loss of Control Prevent emergency procedure and the Engine Failure checklist in an attempt to regain control of the power deficient MRPA. The Accident Investigation Board President determined, by clear and convincing evidence, that the cause of the mishap was the failure of the variable pitch propeller push/pull shaft, also known as the “quill shaft.” The quill shaft failed due to multiple quench cracks as a result of improper tempering at the time of manufacture. Through normal wear and stress, the quench cracks eventually caused the quill shaft to shear. The shaft failure caused the pitch of the propeller to initially fluctuate and then become totally unresponsive to MP power inputs. Due to the inability to control the propeller and engine power, the MRPA entered an un-commanded descent and eventually impacted uninhabited terrain southwest of JBB.

On 14 September 2009, at approximately 0948 Zulu (Z) time, the mishap remotely piloted aircraft (MRPA), a MQ-IB Predator, tail number (T/N) 05-3147, crashed north of Balad Air Base (AB), Iraq. The Predator was an asset of the 27th Special Operations Wing, Cannon Air Force Base, New Mexico and was flown by a Mishap Crew (MC) from the 15 Reconnaissance Squadron, 432d Wing, Creech Air Force Base, Nevada. The MRPA departed Balad AB, Iraq at 0056Z to fly a sortie in support of Operation IRAQI FREEDOM. At 0945:56Z, the MRPA, reported a left tail servo flight control malfunction and subsequently lost its SATCOM datalink with the Ground Control Station (GCS) approximately eight hours and fifty minutes after takeoff. Efforts by the MC, which consisted of the Mishap Pilot (MP) and Mishap Sensor Operator (MSO), to reestablish datalink were unsuccessful. The MRPA crashed north of Balad AB, Iraq and its wreckage was subsequently recovered. There are no known injuries, deaths, or reported property damage. The MRPA was carrying one AGM-114P HELLFIRE missile. The aircraft loss is valued at approximately $3.7 million. The post-mishap investigation revealed no anomalies with regards to the MRPA at the time of the mishap. The preflight and launch was performed with no reported discrepancies. Both the MC, and the previous Mission Control Element crew, reported there were no anomalies with the operation of the MRPA in the several hours of flight immediately prior to the mishap. A review of the performance data recorded prior to loss of link showed no indications of degradation or anomalous readings thus eliminating many other mishap scenarios. The Accident Investigation Board President determined by clear and convincing evidence that the cause of the mishap was a loss of servo control of the left tail board. The loss of servo control was due to a failure of either a servo potentiometer or a cable that connects the servo potentiometer to the Secondary Control Module. Either failure mode would have resulted in the loss of servo control of the left tail causing the tail board to move to a significant trailing edge down position causing the aircraft to lose attitude control and depart from controlled flight. The loss of attitude control resulted in loss of SATCOM link and the subsequent crash. Due to ground impact and extensive fire damage to the wreckage, it was not possible to determine which of the two suspected components failed. The MC had no previous indication of, or reason to suspect an impending servo failure.

On 14 September, at 0835L (1535 Zulu), an RQ-lL, S/N 96-3023, crashed on federal rangeland 7NM north-northeast of Indian Springs NV. The RQ-lL, assigned to the 15 Reconnaissance Squadron, 57th Wing, Indian Springs AFAF, was conducting a combined continuation training and laser characterization mission. The pilot, instructor sensor operator, and the two sensor operators, all of the 15 RS, were not injured in the mishap. There were no injuries to any ground personnel or any significant property damage. Shortly before impact, the mishap pilot inadvertently activated the "Program AV EEPROM" menu option, which dumped the RAM memory in the UAVs Primary Control Module, clearing the preprogrammed data, including weight, frequencies, tail number and IFF squawk. As a result, the RQ-lL lost the C-band data link connection with the ground control station (GCS). Instead of transitioning to a stable, lost-link profile, the aircraft entered a stalled condition, resulting in ground impact approximately three minutes later. The UAV was totally destroyed upon impact with the loss valued at $3,700,000. The UAV impacted on federal range property. The primary cause of this mishap, supported by clear and convincing evidence, was the mishap pilot's activation of the "Program AV EEPROM"

menu option during flight. As a result of habit developed over time and a sense of being rushed, the pilot failed to verify the menu page and options to ensure he was hitting the correct key before entering a command. A contributing factor in this mishap is the basic design of the Predator control system. First, the menu system in the GCS allows a crewmember to place the aircraft in hazardous conditions without any warning or verification that the keystroke made is the correct or intended entry. Second, the Primary Control Module (PCM) default values for weight and lost link altitude created a condition that led to aircraft impact.

An MQ-1B remotely piloted aircraft crashed at Creech AFB, Nev., last June because of the failure of a flight control module that fully deflected the RPA's right aileron, according to Air Combat Command's abbreviated investigation. "This un-commanded lowering of the aileron on only one wing caused the MQ-1B to begin a roll and turn," stated ACC's June 9 release, summarizing the accident investigation report. "This roll progressed until the MQ-1B's steep angle of bank rendered it incapable of maintaining level flight. The aircraft subsequently lost satellite communication and continued to depart controlled flight until it impacted the ground," states the release. The MQ-1 crashed on the Nevada Test and Training Range on June 27, 2014, totally destroying the $4.6 million RPA on impact. The MQ-1 was assigned to the 432nd Wing and operated by controllers from the 15 Reconnaissance Squadron—both at Creech. 2015

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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.
The Institute of Heraldry. U.S. Army. Fort Belvoir, VA.
Air Force News. Air Force Public Affairs Agency.
Unit history. *67 Tactical Reconnaissance Wing with the United Nations Forces, Korea. 1954.*
Unit history. *67 Tactical Reconnaissance Wing, With the United Nations Forces, Korea.* Nd.
USAF Accident Investigation Board Reports.